

## APPENDIX B

The following SOAP-based XML code exemplifies some of the various APIs provided by the invention in an exemplary embodiment.

The format of an exemplary call to reserve a namespace follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
<SOAP-ENV:Body>
<m:NameSpaceReserveRequest
    xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
    <ClientInfo>{Client Application Name}</ClientInfo>
    <Version>2.0</Version>
    <Authorization>
        <Domain> EncryptedkeyX{A.com}</Domain>
        <SiteID>{X}</SiteID>
    </Authorization>
    <AffiliateAdmin>Joe@A.com</AffiliateAdmin>
    <NameSpaceAdmin>
        <SignInName>Fred@B.com</SignInName >
        <Password>101-Dalmations</Password>
    </NameSpaceAdmin>
</m:NameSpaceReserveRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If the request to reserve a namespace succeeds, the format of a NameSpaceReserveResponse XML response is as follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding">
    <SOAP-ENV:Body>
      <m:NameSpaceReserveResponse
        xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
        <Success>True</Success>
        <UID>123456789</UID>
      </m:NameSpaceReserveResponse>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```

If the request to reserve the namespace fails, the following SOAP error response may be sent.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV: Fault>
      <faultcode>SOAP-ENV: Server</faultcode>
      <faultstring>{error text message}</faultstring>
      <detail>
        <mserror: errorInfo
          xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">
          <mserror:resultCode {code}</mserror: resultCode>
            <mserror:serverErrorInfo>
              <mserror:description>{error text message }</mserror:description>
            </mserror:serverErrorInfo>
          <mserror:callStack>
            <mserror:callElement>
              <mserror:component>DelegatedAdmin</mserror: component>
```

```
<mserror:description>{error message text}</mserror:description>
<mserror:returnValue>{ code}</mserror:returnValue>
</mserror:callElement>
</mserror:callStack>
</mserror:errorInfo>
</detail>
</SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The format of an exemplary SOAP call to release a namespace  
(NameSpaceReleaseRequest) follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding"/>
<SOAP-ENV:Body>
<m:NameSpaceReleaseRequest
xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
<ClientInfo>{Client Application Name}</ClientInfo>
<Version>2.0</Version>
<Authorization>
<Domain> EncryptedkeyX{A.com}</Domain>
<SiteID>{X}</SiteID>
<AdminTicket>{ticket}</AdminTicket>
</Authorization>
</m:NameSpaceReleaseRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If the namespace is successfully released, the affiliate will get a response such as the following SOAP response.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding"/>
  <SOAP-ENV:Body>
    <m: NameSpaceReleaseResponse
      xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
      <Success>True</Success>
    </m: NameSpaceReleaseResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If the request to release fails, the affiliate will get an error response such as the following SOAP response.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Body>
    <SOAP-ENV: Fault>
      <faultcode>SOAP-ENV: Server</faultcode>
      <faultstring>{error text message}</faultstring>
      <detail>
        <mserror: errorInfo
          xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">
          <mserror:resultCode>{code}</mserror: resultCode>
          <mserror:serverErrorInfo>
            <mserror:description>{error text message }</mserror:description>
          </mserror:serverErrorInfo>
        <mserror:callStack>
          <mserror:callElement>
```

```
<mserror:component>DelegatedAdmin</mserror:component>
<mserror:description>{error message text}</mserror:description>
<mserror:resultCode>{ code}</mserror:resultCode>
</mserror:callElement>
</mserror:callStack>
</mserror:errorInfo>
</detail>
</SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The format of an exemplary SOAP call to create a user account  
(NameSpaceSignupRequest) follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding"/>
<SOAP-ENV:Body>
<m: NameSpaceSignupRequest
  xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
  <ClientInfo>{Client Application Name}</ClientInfo>
  <Version>2.0</Version>
  <Authorization>
    <Domain> EncryptedkeyX{A.com}</Domain>
    <SiteID>{X}</SiteID>
    <AdminTicket>{ ticket}</AdminTicket>
  </Authorization>
  <User>
    <SignInName>Fred@A.com</SignInName>
    <Password>101-Dalmations</Password>
```

```
</User>
</m: NameSpaceSignupRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If an account is successfully created, the following response may be sent.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
    SOAP-
    ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
        <SOAP-ENV:Body>
            <m: NameSpaceSignupResponse
                xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
                <Success>True</Success>
                <UID>123456859</UID>
            </m: NameSpaceSignupResponse>
        </SOAP-ENV:Body>
    </SOAP-ENV:Envelope>
```

If the account creation fails, the following SOAP response with the error may be sent to the caller.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:Body>
        <SOAP-ENV: Fault>
            <faultcode>SOAP-ENV: Server</faultcode>
            <faultstring>{error text message}</faultstring>
            <detail>
                <mserror: errorInfo
```

```
xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error">
<mserror:resultCode{code}></mserror:resultCode>
<mserror:serverErrorInfo>
<mserror:description>{error text message }</mserror:description>
</mserror:serverErrorInfo>
<mserror:callStack>
<mserror:callElement>
<mserror:component>DelegatedAdmin</mserror:component>
<mserror:description>{error message text}</mserror:description>
<mserror:resultCode>{ code}</mserror:resultCode>
</mserror:callElement>
</mserror:callStack>
</mserror:errorInfo>
</detail>
</SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

An exemplary SOAP-based request for removing user accounts from a namespace follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
      <m: NameSpaceRemoveMemberRequest
        xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
        <ClientInfo>{Client Application Name}</ClientInfo>
        <Version>2.0</Version>
        <Authorization>
```

```
<Domain> EncryptedkeyX{A.com}</Domain>
<SiteID>{X}</SiteID>
<AdminTicket>{ticket}</AdminTicket>
</Authorization>
<Remove>
<SignInName>Joe@A.com</SignInName>
</Remove>
</m: NameSpaceRemoveMemberRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The following response may be sent to the caller if the user is removed.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
    SOAP-
    ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
        <SOAP-ENV:Body>
            <m: NameSpaceRemoveMemberResponse
                xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
                <Success>True</Success>
            </m: NameSpaceRemoveMemberResponse>
        </SOAP-ENV:Body>
    </SOAP-ENV:Envelope>
```

If an error occurs while processing a request to remove a user account from a namespace, an error response will be sent such as the following SOAP-based error response.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:Body>
```

```
<SOAP-ENV: Fault>
  <faultcode>SOAP-ENV: Server</faultcode>
  <faultstring>{error text message}</faultstring>
  <detail>
    <mserror: errorInfo
      xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">
      <mserror:resultCode {code}</mserror: resultCode>
        <mserror:serverErrorInfo>
          <mserror:description>{error text message }</mserror:description>
        </mserror:serverErrorInfo>
      <mserror:callStack>
        <mserror:callElement>
          <mserror:component>DelegatedAdmin</mserror:component>
          <mserror:description>{error message text}</mserror:description>
          <mserror:resultCode>{ code}</mserror:resultCode>
        </mserror:callElement>
      </mserror:callStack>
    </mserror: errorInfo>
  </detail>
</SOAP-ENV: Fault>
</SOAP-ENV: Body>
</SOAP-ENV: Envelope>
```

An example SOAP-based API call to enumerate all the administrators in a given namespace is the following.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
  <SOAP-ENV:Body>
```

```
<m: NameSpaceEnumerateAdminsRequest
  xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
  <ClientInfo>{Client Application Name}</ClientInfo>
  <Version>2.0</Version>
  <Authorization>
    <Domain> EncryptedkeyX{A.com}</Domain>
    <SiteID>{X}</SiteID>
    <AdminTicket>{ ticket}</AdminTicket>
  </Authorization>
  <Type>Namespace</Type>
</m: NameSpaceEnumerateAdminsRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

An exemplary SOAP-based response for enumerating a list of administrators for a namespace follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/"
  SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding">
  <SOAP-ENV:Body>
    <m: NameSpaceEnumerateAdminsResponse
      xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
      <Success>True</Success>
      <Admins>
        <Name>Joe@A.com</Name>
        <Name>Fred@A.com</Name>
        <Name>Sally@A.com</Name>
      </Admins>
    </m: NameSpaceEnumerateAdminsResponse>
```

```
</SOAP-ENV:Body>  
</SOAP-ENV:Envelope>
```

An exemplary API call for requesting the authentication server to add or delete administrators for the namespace is shown below.

```
<SOAP-ENV:Envelope xmlns:SOAP-  
ENV="http://schemas.xmlsoap.org/soap/envelope/"  
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">  
    <SOAP-ENV:Body>  
        <m: NameSpaceEditAdminListRequest  
            xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">  
            <ClientInfo>{Client Application Name}</ClientInfo>  
            <Version>2.0</Version>  
            <Authorization>  
                <Domain> EncryptedkeyX {A.com}</Domain>  
                <SiteID>{X}</SiteID>  
                <AdminTicket>{Encrypted ticket}</AdminTicket>  
            </Authorization>  
            <Action>Add</Action>  
            <Admin>Joe@A.com</Admin>  
        </m: NameSpaceEditAdminListRequest>  
    </SOAP-ENV:Body>  
</SOAP-ENV:Envelope>
```

If the request to process the administrator cannot be processed due to an error, a SOAP-based error response such as shown below will be sent.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">  
    <SOAP-ENV:Body>
```

```
<SOAP-ENV: Fault>
  <faultcode>SOAP-ENV: Server</faultcode>
  <faultstring>{error text message}</faultstring>
  <detail>
    <mserror: errorInfo
      xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">
      <mserror:resultCode>{code}</mserror: resultCode>
        <mserror:serverErrorInfo>
          <mserror:description>{error text message }</mserror:description>
        </mserror:serverErrorInfo>
      <mserror:callStack>
        <mserror:callElement>
          <mserror:component>DelegatedAdmin</mserror:component>
          <mserror:description>{error message text}</mserror:description>
          <mserror:resultCode>{ code}</mserror:resultCode>
        </mserror:callElement>
      </mserror:callStack>
    </mserror: errorInfo>
  </detail>
</SOAP-ENV: Fault>
</SOAP-ENV: Body>
</SOAP-ENV: Envelope>
```

The following SOAP request may be used to obtain a list of administrators that have administrative rights to the namespace.

```
<SOAP-ENV: Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV: Body>
      <m: NameSpaceEnumerateAdminsRequest>
```

```

xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
<ClientInfo>{Client Application Name}</ClientInfo>
<Version>2.0</Version>
<Authorization>
    <Domain> EncryptedkeyX{A.com}</Domain>
    <SiteID>{X}<SiteID>
    <AdminTicket>{ ticket}</AdminTicket>
</Authorization>
<Type>Namespace</Type>
</m: NameSpaceEnumerateAdminsRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

If the request to enumerate administrators is valid, the authentication server responds with a list of administrators for the namespace in a response such as with the following SOAP response.

```

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
    <SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
        <SOAP-ENV:Body>
            <m: NameSpaceEnumerateAdminsResponse
                xmlns:m="http://www.authenticationssystem.com/NameSpace.xsd">
                <Success>True</Success>
                <Admins>
                    <Name>Joe@A.com</Name>
                    <Name>Fred@A.com</Name>
                    <Name>Sally@A.com</Name>
                </Admins>
            </m: NameSpaceEnumerateAdminsResponse>
        </SOAP-ENV:Body>
    </SOAP-ENV:Envelope>

```

```
</SOAP-ENV:Envelope>
```

If there is a problem with processing the request to enumerate administrators in a namespace, the following SOAP response is an exemplary error response sent to the requestor.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Body>
    <SOAP-ENV: Fault>
        <faultcode>SOAP-ENV: Server</faultcode>
        <faultstring>{error text message}</faultstring>
        <detail>
            <mserror: errorInfo
                xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">
                <mserror:resultCode {code}</mserror: resultCode>
                    <mserror:serverErrorInfo>
                        <mserror:description>{error text message }</mserror:description>
                    </mserror:serverErrorInfo>
                <mserror:callStack>
                    <mserror:callElement>
                        <mserror:component>DelegatedAdmin</mserror:component>
                        <mserror:description>{error message text}</mserror:description>
                        <mserror:resultCode>{ code}</mserror:resultCode>
                    </mserror:callElement>
                </mserror:callStack>
            </mserror: errorInfo>
        </detail>
    </SOAP-ENV: Fault>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

The SOAP request to reset a password may look like the following.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"  
    SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">  
    <SOAP-ENV:Body>  
        <m: NameSpaceResetPasswordRequest  
            xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">  
            <ClientInfo>{Client Application Name}</ClientInfo>  
            <Version>2.0</Version>  
            <Authorization>  
                <Domain> EncryptedkeyX {A.com}</Domain>  
                <SiteID>{X}<SiteID>  
                <AdminTicket>{ticket}</AdminTicket>  
            </Authorization>  
            <User>Fred@A.com</User>  
            <Password>OldSmokes</Password>  
        </m: NameSpaceResetPasswordRequest>  
    </SOAP-ENV:Body>  
</SOAP-ENV:Envelope>
```

The following SOAP response is an exemplary SOAP response to inform the requestor that the attempt to reset a password succeeded.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"  
    SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">  
    <SOAP-ENV:Body>  
        <m: NameSpaceResetPasswordResponse  
            xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">  
            <Success>True</Success>  
        </m: NameSpaceResetPasswordResponse>
```

```
</SOAP-ENV:Body>  
</SOAP-ENV:Envelope>
```

The following SOAP response is an exemplary SOAP response to inform the requestor that the attempt to reset a password failed.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">  
  <SOAP-ENV:Body>  
    <SOAP-ENV: Fault>  
      <faultcode>SOAP-ENV: Server</faultcode>  
      <faultstring>{error text message}</faultstring>  
      <detail>  
        <mserror: errorInfo  
          xmlns:mserror="http://schemas.com/soap-toolkit/faultdetail/error/">  
          <mserror:resultCode {code}</mserror: resultCode>  
            <mserror:serverErrorInfo>  
              <mserror:description>{error text message }</mserror:description>  
            </mserror:serverErrorInfo>  
            <mserror:callStack>  
              <mserror:callElement>  
                <mserror:component>DelegatedAdmin</mserror:component>  
                <mserror:description>{error message text}</mserror:description>  
                <mserror:resultCode>{ code}</mserror:resultCode>  
              </mserror:callElement>  
            </mserror:callStack>  
          </mserror: errorInfo>  
        </detail>  
      </SOAP-ENV: Fault>  
    </SOAP-ENV:Body>  
</SOAP-ENV:Envelope>
```

An exemplary SOAP interface to update a profile follows.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"  
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">  
    <SOAP-ENV:Body>  
        <m: NameSpaceUpdateRequest  
            xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">  
            <ClientInfo>{Client Application Name}</ClientInfo>  
            <Version>2.0</Version>  
            <Authorization>  
                <Domain> EncryptedkeyX {A.com}</Domain>  
                <SiteID>{X}</SiteID>  
                <AdminTicket>{Encrypted ticket}</AdminTicket>  
            </Authorization>  
            <User>  
                <SignInName>Fred@A.com</SignInName>  
                <NickName>Joe</NickName>  
                <Email></Email>  
                <Gender></Gender>  
                <Country></Country>  
                <Region></Region>  
                <PostalCode></PostalCode>  
                <Birthdate></Birthdate>  
                <SecretQuestion>Who is the coolest cat on Earth?</SecretQuestion>  
                <SecretAnswer>Toon</SecretAnswer>  
                <AllowEmailinProfile>true</AllowEmailinProfile>  
            <AllowAuthenticationSystemNetworkEmail>true</AllowAuthenticationSystemNetworkEmail>  
                <LanguagePreference>1033</LanguagePreference>  
                <Accessibility>true</Accessibility>  
                <FirstName>Sachin</FirstName>
```

```
<LastName>Kukreja</LastName>
<TimeZone>America/Los_Angeles</TimeZone >
<Occupation>A</Occupation>
<Flags>1100110100</Flags></User>
</User>
</m: NameSpaceUpdateRequest>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

If the request to update a user's profile succeeds, an XML response such as the following SOAP response is sent to the caller.

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
    <SOAP-ENV:Body>
      <m: NameSpaceUpdateResponse
        xmlns:m="http://www.authenticationsystem.com/NameSpace.xsd">
        <Success>True</Success>
      </m: NameSpaceSignupResponse>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>
```